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Equality, Social Organization, and Performance (ESOP)

Confronting theory with Nordic lessons

An application to establish ESOP as a new research centre at the Department of Economics, University of Oslo

1. Key Perspectives

Imagine that representative members of the economics profession were to agree on a list of requirements that would need to be met in order for an economy to prosper. The Nordic countries Denmark, Finland, Norway, and Sweden would surely violate most of these requirements. The Nordic countries would have too small wage differences, too high and too progressive taxes, too large public sectors, too generous welfare states, and too strong unions. Despite of these violations, they have for decades been doing extremely well by accepted measures of economic performance. What most economists see as a recipe for serious economic trouble seems, in the Nordic countries, to be consistent with high growth, low unemployment, low inequality, and a fairly efficient allocation of resources. How come?

This is not a trivial conundrum. Has economics got it wrong? Or, is it rather a question about timing and luck? If the Nordic success stories are just luck, the renewed interest for the "Scandinavian model" in Europe and elsewhere is misguided. If economics has got it wrong, it is important to know how and why, since economic policy advice in other contexts can be based on similar mistakes.

A core idea behind ESOP is to explore the validity of standard economic theories in confrontation with the Nordic experiences and how the Nordic lessons may be used to bring the economics discipline forward. Put bluntly, the Nordic experience constitutes a social laboratory of general interest. Most standard theories in modern economics are developed to capture market based US-style institutions and are confronted with US experience. The Nordic lessons put economic theories to a different test which many of them may fail in the first round.

The emergence of new institutional economics, modern political economy, and behavioral economics is important for this basic research. The wide dissimilarities in institutions, social organization and economic outcomes between countries can be used to test competing theories and to explore completely new hypotheses. The Nordic countries offer social settings that can help establish the empirical validity of the new approaches versus the old. In addition the Nordic countries provide a wide range of relevant data of extremely high quality.

What is termed the "Scandinavian model" is a societal model distinguished by a large welfare state, encompassing unions and employers' associations, and a system of routine consultation among government and representatives for interest organizations. In terms of policy it is characterized by wage leveling through "solidaristic bargaining", the provision of basic goods for everybody as a right of citizenship, and a government committed to full employment (Moene and Wallerstein 1993).

Skeptics have from the beginning doubted the long-run feasibility of such a reformed capitalism. In 1899 Rosa Luxemburg characterized it as "a sort of a labor of Sisyphus" (1970: 43) in which partial victories would be continually eroded by market forces. More recently, conservative critics have made the reverse argument that market forces are steadily eroded by social reform with bad consequences for economic performance (Lundberg 1985).

Neither view is proven correct. Social equality and worker security have persisted in the Nordic countries and economic growth has been at par with the US. In the US rising inequality has gone hand in hand with social cleavages and lower welfare for at least one third of the population. In contrast most of Europe has experienced only modest rise in inequality, but a sharp rise in unemployment. The Nordic countries, however, have in the same period combined social equality with good macroeconomic performance and full employment. This experience seems to negate the commonly presumed trade-off between inequality and unemployment.

In order to search for explanations for these and other contrasting facts we intend to combine traditional approaches in labor economics and macroeconomics with new developments in economics and social science. In addition to drawing on modern political economics, institutional economics, and behavioral economics we will try to broaden the scope of economics by incorporating a wider range of social factors. This research will contribute to new directions in economics.

The methodology in economics is in many respects well suited to incorporate social factors. "General equilibrium", a dominant paradigm in economics, emphasizes the importance of feed-back mechanisms and consistency. But the framework is usually limited to the market mechanism. The wide interconnections between the economic, social, and political forces should be captured within similar frameworks.

Take wage bargaining and welfare-spending. Wage coordination in the labor market normally reduces wage differences. This wage compression may again imply political support for higher welfare spending. The generosity of the welfare state strengthens weak groups in the labor market implying that the lowest wages go up and the wage scale is compressed even further.

A similar process started with the rising female labor participation in the 1960's. As the woman joined her husband as wage laborer the household naturally demanded more public care for children and the elderly. The gradual expansion of the welfare state made it easier for yet more women to enter the workforce.

These are examples of how certain policies, institutions and behaviors fit together and strengthen each other. In the long run, the outcomes may look as if societal arrangements come in packages with different social and economic organization. We believe that there is no universal relationship between equality and economic performance. Under some institutional arrangements, equality and prosperity go together and reinforce each other. Under other institutional arrangements, however, this is not the case. A more narrow economic approach, that neglects institutional complementarities and social spillovers, does not capture such mechanisms and may easily misinterpret the Nordic experience.

A second core idea behind ESOP is to investigating the viability of European welfare states and the feasibility of an equitable society in general. In all countries – rich and poor – there are important interlinkages between equality, social organization, and economic performance. Can Nordic-style welfare arrangements be introduced in all types of societies? Or, are they only feasible in consensual, homogeneous and affluent societies with an extraordinary commitment to equality? Do the Nordic lessons have any relevance for countries that are conflict-ridden, heterogeneous, and poor? Such questions are of general interest in order to suggest feasible development strategies.

In short, ESOP's aims can be summarized in the following ambitions:

- to confront economic theory with the Nordic lessons: Do we need to change the basic behavioral and institutional assumptions or can the Nordic lessons be explained in a standard economic approach when only the details get right?
- to understand the linkages between economic performance, distribution, and social disparities: What are the costs and benefits of more equality?
- to explore the sustainability of generous welfare states and the viability of egalitarian market economies: What determine their performance and their economic and political feasibility?
- to understand the interaction between policies, institutions and long term development: What set of policies and institutions may generate an egalitarian development path within a consistent arrangement?
- to bring these research topics to the international research frontier: What are the general lessons for economics?

2. Why now? Why a centre? Why us?

ESOP has a theme that is important, has research ideas that are great, and will ensemble an excellent team of researchers.

2.1 Why now?

The Scandinavian model is in fashion: It is looked at as a source of inspiration from a number of countries. In China for instance, the government has ambitions of building a "harmonious society" with an emphasis on redistribution, welfare, and social security. As Hu Jintao explained in a speech at Yale on April 21, 2006, "it is a society of democracy and rule of law, fairness and justice, integrity, fraternity, vitality, stability, order and harmony between man and nature." 1

Closer to home the EU summit at Hampton Court in October 2005 on globalization and social models had an agenda that centered on the "Nordic model". The International Herald Tribune in an article in September 2005 says, "European leaders want to know how Sweden and its Nordic neighbors, so heavily laden with cradle-to-grave welfare systems, float high above the struggling economies of much of the rest of the Continent." Another European example of the relevance of the Scandinavian model is the UN's Economic Commission for Europe. In its position paper for the "Beijing +10" conference in 2005 it lists issues that are of particular importance for women. Several points on their list resonate well with basic ingredients of the Scandinavian model. For example, they recommend "[...] implementation and promotion of family friendly policies and services, in accordance with the specific needs of working parents and family life, including affordable, accessible and flexible quality care services for children and other dependants."

A further proof of interest is the latest of the two major agenda setting publications on development issues from the World Bank and the UN. Both focus on the relationships between inequality and economic progress. The World Development Report 2006 for example has sections such as: "Why does equity matter for development?", "The inequality trap for women", "Equity and legal institutions", and "People prefer fairness". The report draws on contributions by core members of ESOP – Moene, Robinson, and Miguel.

The viability of the Scandinavian model is questioned: One obvious challenge is how to uphold the pension system and how to provide care to an aging population. Another challenge is the possibility of a downward pressure on labor standards and unskilled wages in an integrated world economy. A related issue is the problem of taxing capital owners when businesses are free to move to other countries. These and related policy issues were for example addressed in the much debated reports from the Danish Welfare Commission recently.

The policy relevance of ESOP is evident: The above examples illustrate that such research will be highly appreciated in a Nordic, European, and even global context. The centre will conduct solid research on the diverse set of issues that all these policy debates raises and sometimes get wrong.

2.2 Why a centre?

To understand the Nordic lessons a concerted effort is needed: Our research questions are inspired by the apparent failure of standard economics to explain the performance of the Nordic countries. This dissonance is a serious challenge to economic research. It calls for broad theoretical insight combined with an ability to utilize the huge amount of detailed data available on the Nordic economies. Assembling scholars that can fulfill these roles requires a long-term commitment of a centre. A centre of a sufficient size is particularly important to succeed in attracting top international scholars to study the Nordic lessons. They may find it attractive to participate only if the research group is sufficiently stimulating – hence a centre.

Some economic studies have taken up aspects of the issues that we will address. These studies are spread over a number of specific problems using a wide range of theories and methods.³ A centre can bring together top scholars within the relevant fields to work on common problems stimulating a confrontation of the different perspectives. A centre can host a variety of methods, approaches, and specific research questions where the explanatory power of the different theories can be tested. A centre will spur healthy competition between leading scholars over alternative approaches, research frames and interpretations.

¹ www.yale.edu/opa/hu/download/transcript_Hu_20060421.pdf downloaded August 18, 2006.

² http://www.unece.org/oes/gender/documents/Beijing+10/BeijingReport-UNED.pdf downloaded August 18, 2006.

³ See for instance Barth and Zweimüller (1992), Edin and Zetterberg (1992), and Björklund et al. (2004).

To explore the unique Nordic register data: Core members of the centre from the Frisch Centre, the Institute for Social Research, Statistics Norway, and the Norwegian School of Economics and Business Administration have established several data sets by linking information from different administrative sources. They have long experience in using these register-based panel data sets for academic research. The data contain individual-level information for the whole population, including unemployment and earnings records, welfare transfers, and detailed demographic information, including family relationships. Matched employee and employer data offer new possibilities for identifying causal effects in non-experimental situations. This enables us to test behavioral hypotheses in better ways than before (see Røed and Raaum, 2003). The data are essential for assessing the Scandinavian model but can equally well be used to test economic theories more generally. Core members of the centre have a long record of collaboration with international scholars in the joint utilization of register data. Barth and Salvanes are presently members of a project team commissioned by the EU in order to facilitate a comparative analysis of European labor markets.

2.3 Why us?

ESOP constitutes a leading research group: ESOP is based at the Department of Economics at University of Oslo. The Department is top ranked in terms of economic research. It is the leading economics research institution in Norway, and among the top four within the Nordic countries. Obviously, it is also essential that we are from a Nordic country – though with a prominent presence of international scholars with quite different experiences and references.

The core participants in the centre are leaders in their respective fields with a number of publications in top ranked journals. Moreover, the quality of their research is recognized. Hoel, for example, has won the research prize at the University of Oslo and recently Storesletten won an Outstanding Younger Investigator grant from the Research Council of Norway (YFF).

ESOP's participants have the unique mix of complementary strengths: Labor economics is a cornerstone of ESOP, and the Department and its participants have strong traditions in labor market issues, institutions, bargaining, labor supply, and macro implications. Several of the participants have solid experience utilizing the comprehensive panel data sets for basic research questions. Political economics, another cornerstone of the centre, is also a core area at the Department. Development economics is centrally placed in ESOP; and the centre will also draw on public economics, another strong area of the Department and the other participants. ESOP also incorporates new developments in behavioral and experimental economics and game theory.

ESOP's research encompasses major research interests at the Department. It complements several of our research projects, for instance the YFF-financed *Inequality and the Welfare State*. ESOP will ensemble a group of leading Norwegian researchers. Their efforts will be combined with those of ESOP's external partners.

The participants are well-connected with the international research frontier: The participants have active coauthors at a range of leading international institutions. An abridged list includes Yale, Berkeley, Princeton, NYU, Stockholm U, U of Zurich, LSE, Georgetown U, U of Pennsylvania,

⁴ ESOP will also extend the work by the late Michael Wallerstein on indexes of bargaining institutions.

⁵ A centre can attract international scholars and bring the register-based data to even more prominent position in the international research community, similar to that of the micro data of the CPS, PSID, and NLSY in the US. Confidentiality and issues of disclosure will limit the possibility of making all the data generally available without cooperation with Nordic scholars at the centre.

⁶ See the comprehensive ranking of European economics departments and research institutions in the 2003 special issue of the *Journal of the European Economic Association*.

¹⁰ Some of our own contributions include Asheim et al. (2005), Blomquist and Christiansen (1999), Hassler et al. (2003, 2005), Moene and Wallerstein (2001, 2003), and Lind (2003, 2004).

Chicago U, and Harvard (see the CVs for details). Moreover, ESOP's core participants are actively involved in international research networks such as CEPR (Moen, Ulltveit-Moe, Storesletten, and Zilibotti), McArthur Foundation (Moene), and CESifo (Asheim, Christiansen, Hoel, and Holden).

ESOP's external partners are world class scholars. To mention some:

Raquel Fernandez is professor in economics at New York University and must be the leading woman in economics in the world today. Her contribution to the centre will especially take up the role of culture for social mobility, focusing on the interaction between household decisions and female education and labor supply. Her contributions will in addition build on her long lasting theoretical and empirical research on development.

Jim Robinson is a professor in political science at Harvard and Daron Acemoglu is a professor in economics at MIT. Together they have done path-breaking research on the role of institutions for the long run development of rich and poor countries. Through ESOP they will extend their analysis to cover Northern Europe.

George Loewenstein is Herbert A. Simon professor of economics and psychology at Carnegie Mellon. He is one of the pioneers in combining psychological research and economics. The perspectives that he brings to ESOP emphasize the role of fairness, reciprocity motives, intrinsic rewards, and morale also in pure market related interactions.

Samuel Bowles is the director of the behavioral sciences at Santa Fe Institute and an economics professor at University of Sienna. His seminal research on the role of power, institutions, and conventions in markets has proven extremely influential. At ESOP he will extend this perspective to the study of redistribution and the welfare state.

Ellen McGrattan is a Monetary Advisor at the Federal Reserve Bank of Minneapolis and a member of the American Economic Association Executive Committee. Her research concentrates on macroeconomics. She is a prominent scholar in business cycles research and has explored mechanisms that can account for the rise in labor supply of married women, a line of research that she will emphasize through ESOP.

Trond Petersen is a professor in Sociology at UC Berkeley. He is recognized as the leading scholar in economic sociology, with at specialty in gender issues, pay inequality, and work organization. Through ESOP he will contribute to the efforts of incorporating social factors into economics and to the understanding of gender discrimination.

3. Approaches and research ideas

The core ideas behind ESOP are i) to explore how the Nordic lessons may be used to bring the economic discipline forward, and ii) to investigate the viability of European welfare states and the feasibility of an equitable society in general. Starting with these ideas, an overarching theme is the interactions between inequality and performance. Our hypothesis is that the relationship between the two depends on the institutional arrangements. Certain policies, institutional arrangements, and behaviors fit together and may together generate good economic performance combined with equity. To investigate this, our research idea is to combine traditional approaches in labor economics and macroeconomics with new developments in economics, inspired by political science, social psychology, and economic sociology. In particular, we will draw on modern political economics, institutional economics, and behavioral economics in combination with state of the art quantitative and econometric methods.

Political economics focuses on the mutual interaction between politics and economic performance. Over the past fifteen years it has grown into a major field of economics (for excellent reviews see Persson and Tabellini (2000) and the survey of recent empirical applications by Merlo (2006)). The field has expanded to cover a wide range of topics – from macroeconomic adjustments to the theory of welfare states and social insurance.¹⁰

New institutional economics focuses on how organizations work and on the impact of social arrangements on economic performance. It ranges from microeconomic studies of organizational behavior (Williamson 1985) to studies of long-term developments of countries and regions (Enger-

man and Sokoloff 1997, Acemoglu, Johnson, and Robinson 2001, Mukand and Rodrik 2005). Institutional economics is particularly relevant to understand the welfare state arrangements and the collective bargaining systems that are so dominant in European countries and in the Nordic countries in particular.¹¹

Behavioral economics broadens the range of behavioral assumptions used in economic theory, drawing in particular on social psychology. Behavioral economics incorporates several issues of importance to ESOP's research, such as analysis of social norms, reciprocal behavior, other-regarding preferences, intrinsic work motivation, as well as shortsighted planning (for example failure to buy health insurance). Behavioral economics can be regarded as an extension of, rather than as an alternative to, neoclassical economics. Early contributions include Kahneman and Tversky (1979, 1991). Good surveys of behavioral economics are provided by the leading scholars of the approach, such as Rabin (1998) and Camerer, Loewenstein, and Rabin (2003).¹²

Since motives, norms, and preferences often depend on the context, it is import to combine behavioral economics with institutional economics. Since implementation of policies often depend on which power groups and coalitions that are formed, it is important to combine political economics with behavioral economics. Finally, since the political feasibility set depends on the institutional arrangement, it is important to combine political economics with institutional economics.

Based on this rather eclectic approach we will derive testable implications in order to assess the validity of the theoretical results. Using our unique data sets we will strive to identify the exact causal relationships and to evaluate their economic significance.

3.1 Inequality: facts, forces, and consequences

To disentangle the role of inequality, we must derive what economic theory predicts for these societies, beyond the simple textbook answers. We can then confront the theoretical hypotheses with the observed patterns and draw valid conclusions.

To get the facts right: Most developed countries differ little in the distribution of income between labor and capital. However, they differ a lot in how labor incomes are distributed between types of workers and between the sexes; in how capital incomes are distributed over citizens; and in how disposable incomes are distributed over households. The Nordic countries are recognized for having the most compressed wage distributions in the world, while the distribution of capital incomes over households is more unequal. Male and female workers tend to receive equal pay for equal work but the gender wage gap remains high due to gender specific occupation patterns.

To be sure to get these facts right, we will scrutinize and compare data from different sources such as the OECD wage dispersion data, the Luxembourg Income Study, as well as the European Social Survey. In addition we will extract wage data from the available register data. The rich structure of the register data allows us to decompose inequalities along several dimensions: within and between skill-groups and occupations; within and between firms, industries and sectors; across gender and between households. Moreover, the data contains unique information on education and seniority.

There are many mechanisms to explore. For the distribution over individual workers; what role do the firm characteristics play? How are workers sorted across jobs and what are the underlying complementarities between types of workers and types of firms? For the distribution between profits and wages; does a more compressed wage structure tend to increase profit shares? And, for the distribution of household incomes; who marries whom? Would the inequality between households necessarily decline if the gender wage gap were closed?

¹² Some of our own contributions include Brekke et al. (2003), Nyborg and Rege (2003), Moene (1999), Loewenstein and Moene (2006), and Holden (2004).

Some of our own contributions include Mehlum, Moene and Torvik (2006), Moene, Wallerstein and Hoel (1993), Moene and Wallerstein (1995), Nymoen and Rødseth (2003), Barth and Zweimüller (1995), Nyborg and Telle (2004).

Inequality is also affected by the distribution of skills in the labor force. How do institutions and policies shape the distribution of labor market skills?¹³ Skills attained prior to labor market entry is important. As demonstrated by Raaum, Salvanes, and Sørensen (2006), intergenerational economic mobility is greater in Scandinavia compared to other OECD countries.

What drives inequality? Many economists claim that the rising inequality in the US and the UK is driven by technological change and, to a smaller extent, by globalization (see Acemoglu 2002, Autor, Katz and Kearney 2005 for surveys). The Nordic economies have been at least as open to new technologies and trade as the US and the UK and they should therefore have been subject to the same pressures. But wage inequality has remained virtually constant. What can these facts teach us about the mechanisms driving wage inequality?

A simple explanation could be that the education boom in the Nordic countries have has reduced the skill-premiums. This is in line with neoclassical analysis of Krusell et al. (2000). A richer story could include the differences in labor market institutions. While the Nordic labor unions retained their support for wage compression, the labor unions in the US and the UK essentially disintegrated. Exploring the consequences of this, we intend to combine theories of labor unions (see Moene et al. (1993), for an overview) with standard macro analysis, building on Acemoglu, Aghion, and Violante (2001).

For ESOP's questions the interaction between wage equality and education is central. The living conditions through childhood are important for educational choices. Compressed pay scales in one generation may equalize living conditions and thereby create smaller differences in human capital accumulation of their children, implying a more equal distribution of both skills and pay in the next generation. We will investigate – empirically and theoretically – such potential long-run effects of wage compression. In the same vein, we will explore the role of educational policies for lowering skill differences, and how such policies interact with wage compression.

Perhaps the rising US wage inequality is not driven by changes in technology, globalization, and labor unions at all, but by other factors such as changing norms for what pay differentials that are acceptable at the workplace. In particular, we would like to understand what sustains the wage compression. More precisely, what social mechanisms prevent a growing fraction of the workforce from collecting their full private returns to education and skills?

Gender wage gaps, labor supply, and career patterns: Across OECD countries the male-female gap in wages and hours worked has shown a sharp decline over the past three decades (Petersen et al. 1997). In most of Europe, men work less and women work more, while total labor supply is in decline. Is this decline a consequence of lower pay inequality and more gender equality? In order to study this one has to consider labor supply in part as an individual decision and in part as a decision by the household. We will utilize panel data and compare the US, France, Sweden, and Norway.¹⁴

Another possible explanation of gender differences focuses on self-fulfilling beliefs as a source of discrimination: If firms believe that women are less committed to market work than men, they may find it optimal to offer less lucrative career patterns to women. If households believe that women have inferior career opportunities than males, the couple may agree to let women be less committed to market work. Together such beliefs of households and firms may become self fulfilling prophecies that generate higher gender wage gaps (Albanesi and Olivetti 2005). We would like to explore to what extent such tendencies disappear when the wage premiums from promotions and higher skills generally become low – as in the Nordic countries.

Gender wage gaps also affect household incomes. When the rich marry the rich, inequality among individuals can be magnified. If children from richer households take more education than children from poorer households, the social sorting can become rather persistent (Fernández et al.

¹⁴ We plan to combine the above analysis with insights from Greenwood et al. (2003) to explore the evolution of cross-sectional inequality in child-bearing.

¹³ For a discussion for the Scandinavian case see Edin and Zetterberg (1992), and Blau and Kahn (2005).

2005). It is important to explore whether these mechanisms become weaker in societies with low initial inequalities in pay and wealth.

We are also interested in the *consequences* of the shrinking gender wage gaps. For example, does higher relative wage for women imply a better "deal" within the household? Most economic frameworks used for studying allocations within households says "no". Data, however, show that the amount of leisure has increased more for women than for men, both in the US and Norway. These observations will guide us in building theories for how power and resources are allocated within households.

Equality as a byproduct of efficiency? It has been argued that the implicit worker-employer coalitions in Scandinavia have caused both wage compression and improved performance over the last 50 years. One hypothesis is that the main concern of the two parties was not equality, but rather macroeconomic efficiency by increasing structural change through investments in good modern jobs. "Equal pay for equal work" achieved exactly that (Rehn 1952). This was the first step towards solidaristic wage bargaining, institutionalized in the 1950s.

Another hypothesis is that the main beneficiaries from solidaristic bargaining are found in the tails of the income distribution with winners among low paid workers and the capitalist employers, and losers among high skilled middle-class workers. If this is true, a compressed earnings distribution will have the support of a coalition between numerous workers *and* influential capital owners. Such concurrent interests, denoted *ends against the middle alliances*, may explain the viability of the Scandinavian model (Moene and Wallerstein 1997).

Implicit in these arguments is the following claim: The efficient and innovative enterprises gain from wage setting with small wage differentials. Wage compression may stimulate innovation as firms with advanced new technologies do not have to pay excessive wage premiums. As a result, inefficient firms close down as new and more productive firms enter – contributing to the process of structural change that Schumpeter (1934) denoted "the process of creative destruction". Our combined register data on employees and firms can deliver sharp empirical tests of these hypotheses.

We also want to investigate whether these mechanisms can help explain why unemployment has remained low in the Nordic countries. A compressed wage structure may stimulate investments to an extent so that the low skilled workers seldom remain unemployed for long. Unemployment can therefore go down as inequality is reduced.

Many unresolved research questions remains: What are the social and economic forces that prevent groups of employers or employees to deviate from wage coordination? What kind of mutual trust and mutual threats can explain the equity and stability of bargaining societies in Northern Europe? And, what are the relevance of the above process of creative destruction for developing countries with large informal sectors and huge surplus labor?

3.2 The economics of the welfare state

Welfare states provide valuable safety nets, insurance, and redistribution, but these policies also affect people's incentive to work, save, and invest. The political support for the welfare state depends, among other things, on the distribution of income. Gender also plays an important role as women are strong supporters of the welfare state. Finally, a viable welfare state needs to be financed. The willingness to pay taxes may in turn depend on what the welfare state provides and whom it provides for. These mutual interdependencies must be accounted for in order to understand the workings of the Nordic welfare states.

Redistribution versus insurance: How should we explain that the welfare state is most generous in countries that already have small income differences? This is an important question to explore in order to understand the viability of the Scandinavian model and its feasibility in poor countries.

In all countries the majority of citizens would become poorer if inequality went up for a constant total income. If the support for welfare spending were dominated by redistributive motives, a more unequal society would raise the support for welfare spending. If the social insurance motive dominates, however, a more unequal society would lower the demand for social insurance and therefore lead to less support for welfare spending. We can explore these issues within stylized political economics models. Moene and Wallerstein (2001, 2003) demonstrate that the insurance motive prevails even when voters can choose mixes of insurance and redistribution. A more compressed income distribution can therefore sustain a larger welfare state. This result is contrary to what most economic theories predict, but in accordance with what we find in cross-country data.

We will continue this work in order to derive more general results. We will also explore the feedbacks between wage compression and welfare spending by incorporating social mechanisms where welfare state policies strengthen weak groups in the labor market. Preliminary results by Barth and Moene (2005) indicate that these feedback mechanisms can constitute a sizable 'equality multiplier'. This is an important example of how certain policies and institutions may reinforce each other.

Work motives and social insurance: The impact of social insurance on work effort depends on the motivations of the workers. Most economists portray a worker as an individual who trades off leisure for income. Behavioral economics incorporates other work motives, such as self-esteem, 'to contribute to society', 'to achieve a feeling of having earned one's income'. Such motives may be strongly shaped by local cultures and the actions by others. To understand the logic of the cradle-to-grave welfare state of the Nordic countries, we must focus on both pecuniary and non-pecuniary incentives. The challenge is to identify which factors are economically significant under which circumstances.

We will use different theories of motivation to predict reactions to welfare state arrangements. These predictions will be confronted both with observed behavior in the Nordic countries and with data from controlled experiments.

There are many puzzles. Sick leave and disability pensioning, for instance, have been steadily increasing since 1985. A simplistic explanation might be that this is due to the generosity of the social insurance. However, the generosity of the sickness and disability insurance did not expand much after 1980. Moreover, in Norway and Sweden unemployment rates have been low compared to most countries, despite the generous unemployment benefits.

At the individual level there may be an aversion against receiving disability pension and unemployment benefits. This repugnance could be lower the larger the fraction of people who benefit from the programs (Lindbeck, Nyberg and Weibull, 1999). Local norms like these may help explain the large regional differences in the use of disability insurance in Sweden (Lindbeck, Palme and Persson, 2004). We will explore possible reasons for the rise in sick leave and disability using macroeconomic quantitative models that are calibrated to fit the labor market data in the Nordic countries. Finally, unemployment experiences are key determinants for low happiness and low life satisfaction. We will explore how the unemployment history affects the individual's support for unemployment compensation and labor market policies.

Manned by women: In all countries women are the strongest proponents of social insurance. In the Nordic countries, the welfare state is in addition the most important work place for women, both as an employer of female workers and as a facilitator of female labor supply for market work. As Hilde Bojer has stated, Scandinavian women do the same type of work as they always have done – but now for a regular pay for part of the work (see also Rosen 1996). These observations raise important research questions: What does female work participation and occupational choices imply for the support of welfare spending? What are the feedback mechanisms between generous welfare arrangements and resource allocation within the household? The family is an important transmitter of

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¹⁸ See Oswald (1997), Brekke et al. (2003), Brekke and Nyborg (2004).

culture, beliefs and norms. We will investigate how children's educational choices are affected by the work history of their parents and what role the welfare state plays. How do the availability and the price of child care affect labor supply, gender differences and children's education? The register data would again be an important source for empirical assessments, in particular when coupled with survey information by Statistics Norway.

Financing the welfare state: The financing of a welfare state depends on the willingness to pay taxes. For example, while the fraction of unreported work in most European countries varies between 20 and 30 per cent, the incidence of tax evasion in Scandinavia is closer to 10 per cent. It is puzzling that the incidence of tax evasion in Scandinavia is low in spite of the high marginal tax rates. Actual tax evasion, however, is limited by a lack of opportunities for tax evasion, rather than by the willingness to evade taxes (Barth and Ognedal 2005). We will explore further the relationship between the tax base, the size of the unregulated part of the economy and the way economic activities are organized. We will use cross national data on economic crime, collected as part of the European Social Survey. On average female workers evade less of their taxes than men. This can be because women are more law-abiding than men, or because women work in sectors where tax evasion is more difficult. We will explore this by comparing tax evasion in different branches of industries.

3.3 Culture and organization

There is a strong interdependence between how the economy is organized, how the workplace is organized, and what culture of trust and cooperation that prevails in society. Egalitarian societies usually have less hierarchical firms. This work organization in return reinforces the mechanisms that sustain egalitarian features. Small social differences in the society and at the workplace may also produce less social conflict, more cohesion, and hence more smoothly functioning societies with more cooperation.

Work organization: To capture overall effects, one has to look for equilibrium constellations and dynamic effects. In the Nordic countries, unions and employers established coordinated central wage setting. Many manufacturing firms circumvented the central wage setting by moving towards an extensive use of piece rates ("akkord"). In addition the government implemented active labor market policies to assist an economy where firms could not fully utilize wage differentials in their recruitment policy. We can learn a lot about the cost and benefits of wage compression by studying the rise and fall of theses policies.

Do vanishing piece rates combined with small wage differences imply weak work incentives? Local bargaining rights (wage drift) may constitute an implicit collective bonus for hard work and technological improvements.²¹ In Scandinavia explicit rewards were also to some extent replaced by reciprocal trust and collaborative work relations where union locals are expected to participate in raising the local productivity.

Work place relations in Nordic countries are also special in other ways. The catch phrase of 'flexicurity' is used to describe how welfare state arrangements improve flexibility in reallocating workers between jobs and sectors. Work relations in Sweden and Norway are considered to be more participatory, less bossy, and less hierarchical than elsewhere.

Our research will address how different remuneration schemes and organizational designs work – separately and together. Are participatory organizations associated with slack performance or are they associated with high productivity through internal job flexibility and smoother informa-

²⁰ Active labor market policies include training programs and subsidies of allocation of labor between sectors and firms. The policies were initiated in Sweden and then imitated by other Nordic countries.

²¹ Most explicit bonus arrangements today are group-based, even though there is a development in the direction of more individualized pay also in the Nordic countries

tion flows? Linking wages to individual output is only one way of motivating workers. One alternative may be to motivate workers by deferred compensation. Moen and Rosen (2005) ask what is best of incentive contracts that induce opportunistic behavior and deferred compensation that distorts worker turnover.

It is also important to understand how the work place organization depends on worker motivations and behaviors. The work place is an ideal arena for contrasting different theoretical approaches: New institutional economics emphasizes the role of transaction costs – the use of piece rates may have declined to save on transaction costs with the introduction of new complex technologies. Behavioral economics emphasizes the role of intrinsic rewards and social rank – a participatory organization may perform well due to such non-pecuniary rewards; and competition over local status may compress the pay structure. Such mechanisms can be tested against the predictions of the traditional hierarchical principal agent theories. The linking of register data with employer surveys can provide new evidence on how reward schemes and organizational design work.²²

Cooperation, trust, and responsibility: No society can function with unconstrained opportunistic individuals. Cooperative behavior is important for performance in the work place and in the market place. It is evident that the strength of cooperative behavior varies between different work places and societies. The possible interdependence between material incentives and social preferences should be explored further: Is it the case that too much and too little of a good thing - material rewards - can both be harmful for social preferences? First, the lack of material economic incentives can lead to lukewarm cooperation. Second, too much material rewards invite opportunistic behavior that undermines social preferences.

Behavioral economics research shows that reciprocity is an important motivation factor. But does reciprocity prevail in egalitarian societies - does equality make it more or less tempting to follow one's own material interest? One working hypotheses is that markets perform better the more equally initial incomes are distributed. Good performance in the long run therefore requires that markets are not allowed to create too much inequality.

An important challenge to any social and economic system is the possible erosion of popular support. Policies and arrangements that do not include considerations of personal responsibility are often seen as unfair and are not broadly supported (Bowles and Gintis 2000). Moreover, there are interesting international differences in what people believe individuals should be held responsible for, and these differences might explain international differences in redistributive policies (Alesina and Angeletos 2005). We wish to learn how social organization affects widely held ideals and will explore this by means of laboratory experiments (Cappelen et al. 2005). What kind of fairness ideals are actually held by people in Scandinavia?

A related set of topics concern trust building. On example concerns labor disputes. Between WW1 and WW2 Scandinavia had the highest incidence of strikes and lockouts in the world. After WW2 the two countries moved to the lowest levels of such work stoppages. How was trust established? What institutions of conflict management were established? And, what was the key to their success?

3.4 Can egalitarian societies survive in an integrated world economy?

Questions about the viability of egalitarian societies are relevant for all countries, rich or poor, egalitarian or inegalitarian.

The Scandinavian model as a development strategy: ESOP will study the feasibility of implementing welfare state arrangements in poor countries. Can there be a welfare state for the poor? No doubt, welfare state arrangements are most needed in extremely poor countries where they could play an essential role for economic growth, social fairness and gender equality. In the words of the

²² See Aarbu and Torsvik (2006) for an interesting case study and Barth et al. (2006) for explorations on register data.

British Secretary for development Hilary Ben (2006):²³ " Social security – through food or cash - can stop a farmer selling precious assets – her livestock, farm tools – when she suffers a crisis, such as a drought or someone in her family becoming ill. It can help her and those many millions who go hungry even in the good years, when there is no drought. Social security can encourage her to take risks with higher yielding crops. It can encourage poor families to keep their children in school – as shown by very successful schemes in Brazil, Mexico and South Africa. All of them contribute to growth, but also to a fairer and more equitable society."

How welfare state arrangements can enhance both productivity and fairness is central to ESOP's research. In most developing countries the alternative is informal mutual help systems based on kinship. We will explore the incentives and opportunities that such informal arrangements represent. For example, to what extent do they discourage entrepreneurial initiatives? What are the consequences for savings, education and social mobility? Would the rich within such a system lose or gain from a moving towards a formal social insurance? And, what are the costs and benefits in general of moving in that direction?

Today social reformers in China, South Africa, and South America claim that they are particularly interested in the Nordic route to prosperity and equality. To discuss what other countries can learn, we need to distinguish between the economic feasibility and political feasibility of the model. In particular we need to understand what elements of the model that rely on policy intervention, what elements that rely on behavior and norms, and how a transformation may be started and sustained. We will investigate how social experiments, similar to the Nordic ones, have worked and sometimes failed in developing countries. A systematic exploration of these issues can teach us more about the role of alternative development models in the third world and about the role of historical preconditions, cultural factors and persistent institutions. Perhaps, as Moene and Wallerstein (2006) suggest, the Scandinavian model should be viewed as a development strategy rather than as an end state.²⁴

The viability of the Scandinavian model: One of the main questions in ESOP is whether the Scandinavian model is viable in an integrated world economy. There is a number of diverging forces at play. The viability of the Scandinavian model depends on social cohesion, both among unions and among employers, and on a willingness to negotiate mutually beneficial agreements in the coordinated wage setting. On top of that there has to be consensus about a generous welfare state. The system may start to dissolve if one of these social pillars are weakened and if the weakening is not met by compensating forces and adjustments.

In order to understand the overall robustness of the Scandinavian model we have to consider all the major forces simultaneously within a consistent framework. Many commentators have emphasized how globalization weakens some of the social pillars without discussing potential strengthening of others. ESOP will strive to account for both possibilities. For example, harder competition from the world economy exposes the workers to new risks. In parts of the manufacturing industries there will be a constant threat of closing down. As a result, the need and demand for social insurance and labor standards increase. At the same time, an inflow of workers from poorer countries may put a downward pressure on labor standards and may dampen the support for universal generous welfare benefits.

The list of important research questions covers a range of issues. For example: How is the process of creative destruction affected by a freer capital mobility? -- Will only the less efficient firms move and thereby free resources for the innovative ones? How do economic integration and trade dependence affect industrial relations? – Will the employers lose their ability to credibly call a lock-out? How does globalization affect the union structure and the allocation of union members on traded and non-traded sectors? – Will the "metal workers" totally lose their influence? How are the social coalitions affected by globalization? – Will the solidarity among capitalists end? How are the political processes affected? – Will low-skilled workers strengthen their alliances across borders

²⁴ ESOP has one member from South Africa and one member from South America.

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²³ http://www.dfid.gov.uk/news/files/Speeches/wp2006-speeches/services160206.asp

or rather associate even closer with their nation? It is the totality of questions like these that needs to be explored in order to assess the viability Scandinavian model.

4. Organization and participants

ESOP will be headed by Professor Kalle Moene while professor Halvor Mehlum will act as deputy. Moene has been professor at the Department since 1987 and his main research has been within the centre's core themes. He has supervised a large number of PhD students and is often used as opponent at doctoral defenses and as a member of evaluating committees in the Nordic countries and elsewhere. He has several years' experience supervising research projects at the Frisch Centre and at CSCW at Prio. He is a member of the Norwegian Academy of Science and Letters and has served as editor of The Scandinavian Journal of Economics. Moene has also been an active communicator to the general public, see for instance his monthly column in the newspaper Dagens Næringsliv, and his popular book on 'Equality under pressure' written for the public commission on power and democracy together with Barth and Wallerstein.

The following researchers from the Department will be participating in the centre: Geir Asheim, Erling Barth, Vidar Christiansen, Michael Hoel, Steinar Holden, Halvor Mehlum, Tore Nilssen, Tone Ognedal, Asbjørn Rødseth, Kjetil Storesletten, Karen Helene Ulltveit-Moe (formerly Midelfart), and Fabrizio Zilibotti . Partcipants from other Norwegian institutions are Bernt Bratsberg, Kjell Arne Brekke, Karine Nyborg, Knut Røed, and Oddbjørn Raaum from the Frisch Centre, Dag Morten Dalen, Espen Moen, and Christian Riis from the Norwegian School of Management, Alexander Cappelen, Kjell Gunnar Salvanes, and Bertil Tungodden from The Norwegian School of Business and Administration, Gaute Torsvik from the University of Bergen, Mari Rege from the University of Stavanger, and Ragnar Torvik from the Norwegian University of Science and Technology.

The list of international net work members of ESOP (guest researchers or adjunct professors) includes: Daron Acemuglo (MIT), Jean Marie Baland (Namur), Sam Bowles (Santa Fe Institute and University of Sienna), Rob Davies (University of Zimbabwe), Raquel Fernandez (New York University), Miriam Golden (UCLA), Emily Haisley (Carnegie Mellon), Jonathan Heathcote (Georgetown University), Ethan Kaplan (Stockholm University), Eliana La Ferrara (Bocconi University), George Loewenstein (Carnegie Mellon), Ellen McGrattan (Research Department, Federal Reserve Bank of Minneapolis), Ted Miguel (UC Berkeley), Eva Nagypal (Northwestern), Trond Petersen (UC Berkeley), Jim Robinson (Harvard), Åsa Rosén (Stocholm University), Maria Saez-Marti (Zurich), Virginia Sanchez Marcos (Universidad de Cantabria), Andres Solimano (CEPAL, Chile), Erik Ø. Sørensen (Mannheim), Giovanni Violante (New York University), Elisabeth Wood (Yale), and Amir Yaron (Wharton).

ESOP will be located at the Department of Economics at the University of Oslo. The University has committed to provide the necessary office space and all the centre's activities will take place at the Blindern campus. Moene, Mehlum and other permanent staff at the Department will contribute in all thematic areas securing that the project indeed becomes a concerted endeavor.

The centre will offer three-year fellowships to a total of 14 PhD students during the ten-year period. The Department offers them a fourth year as teaching assistants. The centre will organize at least three PhD courses per year within the core theoretical themes of the centre. Some of these will be concentrated in time to allow for participation by short-term visiting students from Europe.

Milestones

To guide our work and to set milestones for the first five years we plan to arrange the following yearly conferences:

- 1. How bright is the Nordic light? Confronting economics with the Nordic experiences -- and Nordic scholars with international economists' skepticism.
- 2. The Scandinavian model as a development strategy Developing country perspectives.
- 3. The macroeconomics of egalitarian economies. The feasibility of combining US unemployment with European equality. Employment flexibility versus long term employment.

- 4. Explaining too much with too little? The role of fairness, reciprocity and self-interest in the political economy of welfare states and bargaining societies.
- 5. Scandinavia and the world economy. International tax competition, institutional convergence and social instability.

Publication plan

The main academic outlet for our research will be articles published in high quality economics journals. All the participants have an extensive publication record. As all the involved researchers are already working with the centre's topics, the dissemination work will start from day one. Moreover, it is required that PhD dissertations produced at the centre have the quality required for publication in international journals.

As the topics we study are directly relevant to an understanding of current societal and political trends, we see a large potential for popular contribution. The centre will participate actively in the public debate and contribute with popularized publications on all the topics studied at the centre. We will strive to become a major agenda setter in important public debates. Among other things, we will dedicate resources for assisting the centre members in popularizing their research and reaching a wider audience.

Finally, we will organize annual conferences for politicians, government officials, and the media on current topics related to the centre's activities.

REFERENCES

Acemoglu, D. (2001): "Good Jobs versus Bad Jobs." Journal of Labor Economics 19: 1-22.

Acemoglu, D. (2002): "Technical Change, Inequality and Labor Market." Journal of Economic Literature 40: 7-72.

Acemoglu, D., P. Aghion, and G.L. Violante (2001): "Deunionization, technical change and inequality," *Carnegie-Rochester Conference Series on Public Policy* 55: 229-264.

Acemoglu, D., S. Johnson and J. A. Robinson (2001): "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review*, 91: 1369-1401.

Albanesi, S. and C. Olivetti (2005): "Home Production, Market Production and the Gender Wage Gap: Incentives and Expectations." CEPR Discussion Paper no. 4984.

Alesina, A., and G.-M. Angeletos (2005): "Corruption, inequality, and fairness." Journal of Monetary Economics 52: 1227-1244.

Asheim, G. B., C. A. Claussen, and T. Nilssen (2005): "Majority Voting Leads to Unanimity." Forthcoming in *International Journal of Game Theory*.

Autor, D. H., L. F. Katz and M. S. Kearney (2005): "Trends in U.S. Wage Inequality: Re-Assessing the Revisionists." NBER Working Paper No. 11627.

Barth, Erling, B. Bratsberg, T. Hægeland, and O. Raaum (2006): "Performance Pay and Within Firm Inequality." Mimeo, The Frisch Centre, Oslo.

Barth, E. and K. Moene (2005). "The Equality Multiplier. An empirical assessment of the simple logic of the Scandinavian Model." Mimeo, UiO.

Barth, E., and T. Ognedal (2005): "The market for unregulated labour." Memorandum 28/2005, UiO.

Barth, E., and J. Zweimüller (1992): "Labour market institutions and the industry wage distribution, evidence from Austria, Norway and the U.S." *Empirica* 19: 181-201.

Barth, E., and J. Zweimüller (1995): "Relative Wages under Decentralized and under Corporatist Bargaining Systems." *Scandinavian Journal of Economics* 3: 369-84.

Björklund, A., B. Bratsberg, T. Eriksson, M. Jäntti, and O. Raaum (2004): "Inter-Industry Wage Differentials and Unobserved Ability: Siblings Evidence from Five Countries." IZA Discussion Paper 1080.

Blau, F. D., and L. M. Kahn (2005): "Do Cognitive Test Scores Explain Higher U.S. Wage Inequality?" *Review of Economics and Statistics* 87: 184-193.

Blomquist, S and V. Christiansen (1999): "The political economy of publicly provided private goods." *Journal of Public Economics*

Bowles, S. and H. Gintis (2000): "Reciprocity, self-interest, and the welfare state." Nordic Journal of Political Economy 26: 33-53.

Brekke, K. A., S. Kverndokk, and K. Nyborg (2003): "An Economic Model of Moral Motivation." *Journal of Public Economics* 87: 1967-83.

Brekke, K. A., and K. Nyborg (2004): "Moral hazard and moral motivation: Corporate social responsibility as labor market screening." Memorandum 25/2004, UiO.

Camerer, C. F., G. Loewenstein, and M. Rabin (2003): Advances in Behavioral Economics. Princeton, NJ: Princeton University Press.

Cappelen, A. W., A. D. Hole, E. Ø. Sørensen, and B. Tungodden (2005): "The pluralism of fairness ideals: An experimental approach." Discussion Paper 12/2005, NHH, Bergen.

Edin, P-A and J. Zetterberg (1992): "Interindustry Wage Differentials: Evidence from Sweden and a Comparison with the United States." *American Economic Review* 82, 1341-1349.

Engerman, S. L. and K. L. Sokoloff (1997): "Factor Endowments, Institutions, and Differential Paths of Growth among New World Economies." In S.H. Haber (ed.): *How Latin America Fell Behind*. Stanford, CA: Stanford University Press.

- Fernández R., N. Guner, J. Knowles (2005): "Love and Money: A Theoretical and Empirical Analysis of Household Sorting and Inequality." *Quarterly Journal of Economics* 120: 273-344.
- Greenwood, J., N. Guner, and J. A. Knowles (2003): "More on Marriage, Fertility, and the Distribution of Income." *International Economic Review* 44: 827-862.
- Hassler, J, J. V. Rodríguez Mora, K. Storesletten, and F. Zilibotti (2003): "The Survival of the Welfare State." *American Economic Review* 93: 87-112.
- Hassler, J, K. Storesletten, and F. Zilibotti (2005): "Democratic Public Good Provision." Forthcoming Journal of Economic Theory.
- Holden, S. (2004): "Behavioural macroeconomics and the aggregate supply puzzle." *The Nordic Journal of Political Economy* 30: 27-36.
- Kahneman D. and A. Tversky (1979): "Prospect theory: An analysis of decision under risk." Econometrica 47: 263-292.
- Kahneman D. and A. Tversky (1991): "Loss aversion in riskless choice: A reference-dependent model." *Quarterly Journal of Economics* 106: 1039-61.
- Krusell P., L.E. Ohanian, J.V. Rios-Rull, and G.L. Violante (2000): "Capital-Skill Complementarity and Inequality", Mimeo.
- Lind, J. T. (2003): "Fractionalization and the size of government." Memorandum 21/2003, UiO.
- Lind, J. T. (2004): "Do the rich vote Conservative because they are rich?" Memorandum 23/2004, UiO.
- Lindbeck, A., S. Nyberg, and J. W. Weibull (1999): "Social Norms and Economic Incentives in the Welfare State." *Quarterly Journal of Economics* 114: 1-35.
- Lindbeck, A.., M. Palme, and M. Persson (2004): "Sjukskrivning som ett socialt fenomen." Ekonomisk Debatt 4: 50-62.
- Loewenstein, G and K. Moene (2006): "On Mattering Maps." In Aanund Hylland, Olav Gjelsvik, Jon Elster and Karl Moene (ed.) *Understanding Choice, Explaining Behaviour*. Oslo: Oslo Academic Press.
- Lundberg, E. (1985): "The rise and fall of the Swedish model." Journal of Economic Literature 23: 1-36.
- Luxemburg, R. (1970): Reform or Revolution. New York: Pathfinder Press.
- Mehlum, H., K. Moene, and R. Torvik (2006): "Institutions and the resource curse." Economic Journal 116: 1-20.
- Merlo, A. (2006): "Whither political economy? Theories, facts and issues." Forthcoming in R. Blundell, W. Newey and T. Persson (eds.): Advances in Economics and Econometrics, Theory and Applications: Ninth World Congress of the Econometric Society. Cambridge: Cambridge University Press.
- Moen, E., and Å. Rosen (2005): "Incentive Contracts and Worker Turnover in Search Equilibrium." Mimeo, BI.
- Moene, K. (1999): "Addiction and Social Interaction." In J. Elster and O. J. Skog (eds.): *Getting Hooked. Rationality and Addiction*. Cambridge: Cambridge University Press.
- Moene, K., and M. Wallerstein (1993): "What's Wrong with Social Democracy." In P. Bardhan and J. E. Romer (eds.): *Market Socialism*. New York: Oxford University Press.
- Moene, K., and M. Wallerstein (1995): "How Social Democracy Worked." Politics and Society 23: 185-211.
- Moene, K., and M. Wallerstein (1997): "Pay Inequality." Journal of Labor Economics 15: 403-30.
- Moene, K., and M. Wallerstein (2001): "Inequality, social insurance, and redistribution." *American Political Science Review* 95: 859-874.
- Moene, K., and M. Wallerstein (2003): "Earnings inequality and welfare spending: A disaggregated analysis." World Politics 55: 485-516.
- Moene, K., and M. Wallerstein (2006): "Social Democracy as a Development Strategy." In P. Bardhan, S. Bowles, and M. Wallerstein (eds.): *Globalization and Egalitarian Redistribution*. Princeton, NJ: Princeton University Press.
- Moene, K., M. Wallerstein, and M. Hoel (1993): "Bargaining structure and economic performance." In R. J. Flanagan, K. O. Moene, and M. Wallerstein (eds.): *Trade Union Behaviour, Pay Bargaining and Economic Performance*. Oxford: Oxford University Press.
- Mukand, S. W., and D. Rodrik (2005): "In Search of the Holy Grail: Policy Convergence, Experimentation, and Economic Performance." *American Economic Review* 95: 374-83.
- Nyborg, K., and M. Rege (2003): "On Social Norms: The Evolution of Considerate Smoking Behavior." *Journal of Economic Behavior and Organization* 52: 323-40.
- Nyborg, K., and K. Telle (2004): "The Role of Warnings in Regulation: Keeping Control with Less Punishment." *Journal of Public Economics* 88: 2801-2816.
- Nymoen, R., and A. Rødseth (2003): "Explaining unemployment: some lessons from Norwegian wage formation." *Labour Economics* 10: 1-29.
- Oswald, A. (1997): "Happiness and economic performance." Economic Journal 107: 1815-31.
- Persson, T. and G. Tabellini (2000): Political Economics. Explaining Economic Policy. Cambridge, MA: MIT Press.
- Petersen, T., V. Snartland, L.E. Becken, and K. M. Olsen (1997): "Within-Job Wage Discrimination and the Gender Wage Gap, The Case of Norway." European Sociological Review 13: 199-213.
- Raaum, O., K. G. Salvanes, and E. Ø. Sørensen, 2006: "The Neighbourhood is Not What it Used to be." *Economic Journal* 116: 200-222.
- Rabin, M. (1998): "Psychology and Economics." Journal of Economic Literature 36: 11-46.
- Rehn, G. (1952): "The Problem of Stability: An Analysis of Some Policy Proposals." In R. Turvey (ed.): Wage Policy under Full Employment. London: W. Hodge.
- Røed, K. and O. Raaum (2003): "Administrative Registers Unexplored Reservoirs of Scientific Knowledge?" *Economic Journal* 113: 258-81.
- Rosen, S. (1996) "Public Employment and the Welfare State in Sweden." Journal of Economic Literature 34: 729-740.
- Schumpeter, J. A. (1934): The Theory of Economic Development Cambrigde, MA: Harvard University Press.
- Williamson, O. (1985): The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting. New York: The Free Press
- Aarbu, K. O., and G. Torsvik (2006): "Pay and performance in a customer service centre principal and agents or principally angels?" Mimeo, University of Bergen.